



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,453	11/10/2005	Chce Ec Lee	NL 030594	3780

24737 7590 05/15/2007

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER
----------

AUVE, GLENN ALLEN

ART UNIT	PAPER NUMBER
----------	--------------

2111

MAIL DATE	DELIVERY MODE
-----------	---------------

05/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/556,453	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Glenn A. Auve	<b>Art Unit</b> 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on: \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

First of all, it is not entirely clear what applicant intends for the title to be. Some of the papers filed in the case refer to the title as "Host Controller" while the PCT application and U.S. Pre-grant Publication application are listed as "Ubs host controller with DMA capability". Applicant should clarify the title. It is also noted that "Ubs" should be "USB".

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 7 are rejected it is not clear how the DMA controller receives the starting address and block length "sent from the host controller" since the DMA controller is a part of the host controller.

Claims 2-6 and 8-10 are rejected because they depend on claims 1 and 7.

Claim 6 is also rejected based on lack of positive antecedent basis of "it" on line 2. This could refer to either the DMA controller or the processor.

Claims 11 and 12 are also rejected based on lack of positive antecedent basis of "it". This could refer to either the DMA controller or the processor.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1,2,6,7,11, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Nozaki, U.S. Pat. App. Pub. No. 2002/0178310 A1.

As per claim 1, Nozaki shows an embedded host controller, for use in a USB system comprising a processor (101) and an associated system memory (201), the host controller comprising: a DMA controller (104), the host controller being adapted such that, in order to retrieve data from the associated system memory, a starting address and block length are sent to the DMA controller, and the DMA controller being adapted such that, on receipt of a starting address and block length sent from the host controller, it retrieves the indicated data from the associated system memory (paragraphs [0049-0053]). Nozaki shows all of the elements recited in claim 1.

As for claim 2, the argument for claim 1 applies. Nozaki also shows that the DMA controller is adapted to send a bus request to the processor, and to retrieve data from the associated system memory only when bus access has been granted (paragraphs [0049-0053]). Nozaki shows all of the elements recited in claim 2.

As for claim 6, the argument for claim 1 applies. Nozaki also shows that the DMA controller is adapted to send a signal to the processor while it is retrieving data from the associated system memory, thereby preventing the processor from simultaneously attempting to

access the associated system memory (paragraphs [0049-0053]). Nozaki shows all of the elements recited in claim 6.

As per claim 7, Nozaki shows a USB host, comprising: a processor (101), wherein the processor is adapted to grant bus access (paragraphs [0049-0053]); a system memory (21), to which the processor writes USB data; and a host controller, the host controller comprising: a DMA controller (104), and the host controller being adapted such that, in order to retrieve data from the system memory, a starting address and block length are sent to the DMA controller, and the DMA controller being adapted such that, on receipt of a starting address and block length sent from the host controller, it sends a bus request to the processor, and retrieves data from the system memory only when bus access has been granted (paragraphs [0049-0053]). Nozaki shows all of the elements recited in claim 7.

As per claim 11, Nozaki shows a USB host, comprising: a processor (101); a system memory (21); a sub-system memory (108), to which the processor writes USB data; and a host controller, the host controller comprising: a DMA controller (104), and the host controller being adapted such that, in order to retrieve data from the sub-system memory, a starting address and block length are sent to the DMA controller, and the DMA controller being adapted such that, on receipt of a starting address and block length sent from the host controller, it retrieves the indicated data from the sub-system memory, the DMA controller being further adapted to send a signal to the processor while it is retrieving data from the sub-system memory, thereby preventing the processor from simultaneously attempting to access the sub-system memory (paragraphs [0049-0053]). Nozaki shows all of the elements recited in claim 11.

As for claim 12, the argument for claim 11 applies. Nozaki also shows that the DMA controller is adapted to send a signal to the processor while it is retrieving data from the associated system memory, thereby preventing the processor from simultaneously attempting to

access the associated system memory (paragraphs [0049-0053]). Nozaki shows all of the elements recited in claim 12.

***Allowable Subject Matter***

6. Claims 3-5 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not appear to show the timing limitations recited in claims 3-5 and 8-10.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The other cited references show DMA or USB systems.

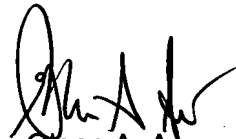
9. Applicant is reminded of the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn A. Auve whose telephone number is (571) 272-3623. The examiner can normally be reached on M-F 8:00 AM-5:30 PM, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571) 272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2111

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Glenn A. Auve  
Primary Examiner  
Art Unit 2111

gaa  
11 May 2007